

INTERNATIONAL SEARCH REPORT

ational Application No

PC 1/DE 03/04286

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L21/762 H01L27/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 328 331 A (TOKYO SHIBAURA ELECTRIC CO) 16 August 1989 (1989-08-16)	10-18
Y	the whole document column 7, line 12 - line 35 figure 5	1-9
X	US 5 909 626 A (KOBAYASHI KENYA) 1 June 1999 (1999-06-01)	10-18
Y	column 6, line 19 - column 9, line 20 figures 1,3.5	1-9
X	US 5 356 827 A (OHOKA TSUKASA) 18 October 1994 (1994-10-18)	10-18
Y	column 2, line 49 - column 4, line 54 figure 1	1-9
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

21 July 2004

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28/07/2004

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PCT/DE 03/04286

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	YU OHATE ET AL: "DIELECTRICALLY ISOLATED INTELLIGENT POWER SWITCH" PROCEEDINGS OF THE CUSTOM INTEGRATED CIRCUITS CONFERENCE. PORTLAND, MAY 4 - 7, 1987, NEW YORK, IEEE, US, vol. CONF. 9, 4 May 1987 (1987-05-04), pages 443-446, XP000011869 figure 4	10-18
Y	US 6 229 179 B1 (JANG SIN-KOOK ET AL) 8 May 2001 (2001-05-08) column 6, line 35 - column 8, line 27; figure 3	1,2,4-9
Y	EP 1 267 414 A (MITSUBISHI ELECTRIC CORP) 18 December 2002 (2002-12-18) figures 44,54,60,66	3

INTERNATIONAL SEARCH REPORT

Information on patent family members

national Application No

T/DE 03/04286

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0328331	A	16-08-1989	DE 68929504 D1	15-01-2004
			EP 0328331 A2	16-08-1989
			EP 0721211 A2	10-07-1996
			JP 2168646 A	28-06-1990
			JP 2788269 B2	20-08-1998
			KR 9203442 B1	01-05-1992
			US 5688702 A	18-11-1997
			US 5512774 A	30-04-1996
			US 5049968 A	17-09-1991
			US 5072287 A	10-12-1991
			US 5097314 A	17-03-1992
			US 5332920 A	26-07-1994
US 5909626	A	01-06-1999	NONE	
US 5356827	A	18-10-1994	JP 3014012 B2	28-02-2000
			JP 5267439 A	15-10-1993
US 6229179	B1	08-05-2001	KR 2000027734 A	15-05-2000
			TW 441110 B	16-06-2001
EP 1267414	A	18-12-2002	JP 3299374 B2	08-07-2002
			JP 7235664 A	05-09-1995
			EP 1267414 A2	18-12-2002
			DE 69530633 D1	12-06-2003
			DE 69530633 T2	26-02-2004
			EP 0669659 A2	30-08-1995
			US 5637886 A	10-06-1997